

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of generating a synchronisation pulse representing a symbol boundary in a signal comprising useful symbol periods separated by guard spaces, with data in each guard space corresponding to part of the data in a respective useful period, the method comprising processing by one or more processors pairs of samples of a received signal which are separated by a period corresponding to the useful part of the symbol by deriving a first signal dependent upon the relationship between the amplitudes of the samples of each pair, a second signal dependent upon the relationship between the phases of the samples of each pair, combining the first and second signals and generating the synchronisation pulse in response to the resultant signal changing in a predetermined manner.

2. (Previously Presented) A method as claimed in claim 1, wherein the synchronisation pulse is generated in response to detecting a change in the resulting signal corresponding to termination of processing of the guard space data of the first of multiple versions of the signal subject to respective different delays.

3. (Original) A method as claimed in claim 1 or claim 2, including the step of low-pass filtering the first signal so as to reduce variations in the value of the first signal for successive sample pairs.

4. (Previously Presented) A method as claimed in claim 1, including the step of low-pass filtering the second signal so as to reduce variations in the value of the second signal for successive sample pairs.

5. (Previously Presented) A method as claimed in claim 1, including the step of filtering the second signal by tracking values corresponding to relatively high levels of phase difference.

6. (Currently Amended) A method of generating a synchronisation pulse representing a symbol boundary in a signal comprising useful symbol periods separated by guard spaces, with

data in each guard space corresponding to part of the data in a respective useful period, the method comprising processing by one or more processors pairs of samples of a received signal which are separated by a period corresponding to the useful part of the symbol by deriving a first signal dependent upon the relationship between the amplitudes of the samples of each pair, a second signal dependent upon the relationship between the phases of the samples of each pair, combining the first and second signals and generating the synchronisation pulse in response to the resultant signal changing in a predetermined manner~~A method as claimed in claim 1,~~ including the step of applying a filter to the resultant signal so as to combine values of the resultant signal with values for corresponding parts of different symbols, and deriving the synchronisation pulse from the filtered resultant signal.

7. (Currently Amended) A method of generating a synchronisation pulse representing a symbol boundary in a signal comprising useful symbol periods separated by guard spaces, with data in each guard space corresponding to part of the data in a respective useful period, the method comprising processing by one or more processors pairs of samples of a received signal which are separated by a period corresponding to the useful part of the symbol by deriving a first signal dependent upon the relationship between the amplitudes of the samples of each pair, a second signal dependent upon the relationship between the phases of the samples of each pair, combining the first and second signals and generating the synchronisation pulse in response to the resultant signal changing in a predetermined manner~~A method as claimed in claim 1,~~ including subjecting the resultant signal to a median filter prior to deriving the synchronisation pulse.

8. (Previously Presented) A method as claimed in claim 1, wherein the first, second and resultant signals are derived in such a way that the resultant signal can fluctuate at intervals which are substantially shorter than the guard space.

9. (Previously Presented) A method as claimed in claim 1, when used for generating a synchronisation pulse representing symbol boundary in an OFDM signal.

10. (Previously Presented) Apparatus for generating a synchronisation pulse representing a symbol boundary in a signal comprising useful symbol periods separated by guard spaces, with data in each guard space corresponding to part of the data in a respective useful period, the apparatus comprising:

a processor which processes pairs of samples of a received signal which are separated by a period corresponding to the useful part of the symbol, the processor having first processing means for deriving a first signal dependent upon the relationship between the amplitudes of the samples of each pair, a second processing means for deriving a second signal dependent upon the relationship between the phases of the samples of each pair, and a combiner for combining the first and second signals and for generating the synchronization pulse in response to the resultant signal changing in a predetermined manner.

11. (Previously Presented) A receiver comprising means for receiving and demodulating a signal, and apparatus for generating a synchronization pulse representing a signal boundary in a signal comprising useful symbol periods separated by guard spaces, with data in each guard space corresponding to part of the data in a respective useful period, the apparatus comprising:

a processor which processes pairs of samples of a received signal which are separated by a period corresponding to the useful part of the symbol, the processor having first processing means for deriving a first signal dependent upon the relationship between the amplitudes of the samples of each pair, a second processing means for deriving a second signal dependent upon the relationship between the phases of the samples of each pair, and a combiner for combining the first and second signals and for generating the synchronization pulse in response to the resultant signal changing in a predetermined manner.